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Fig.1

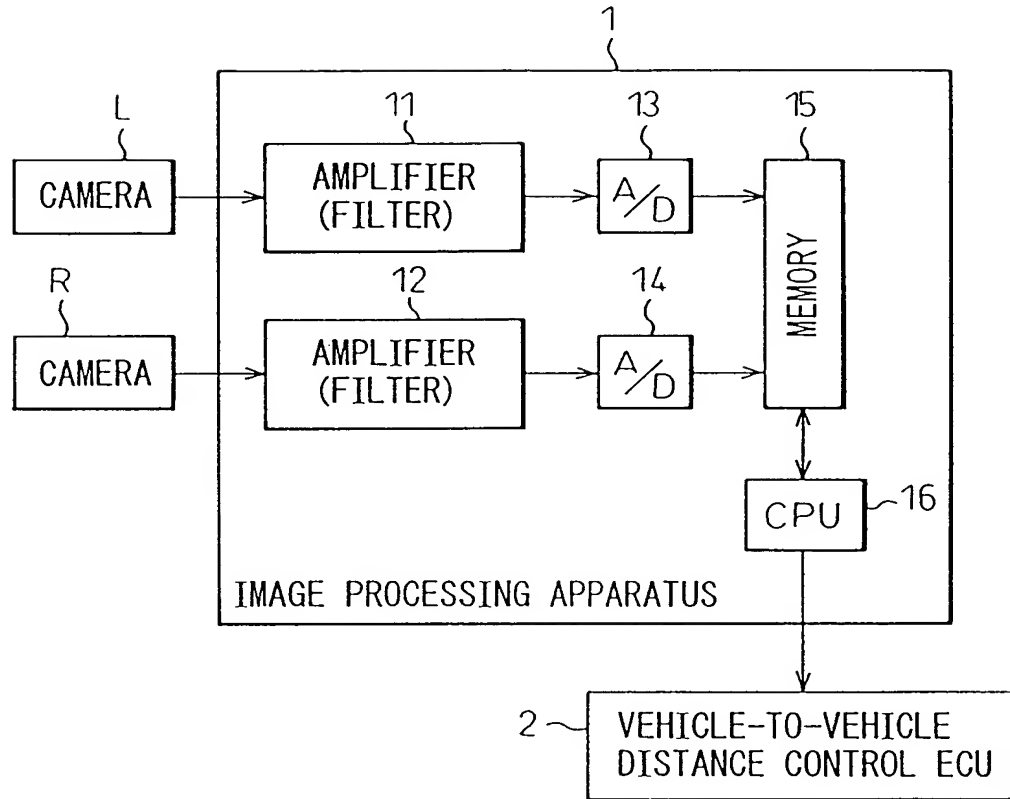
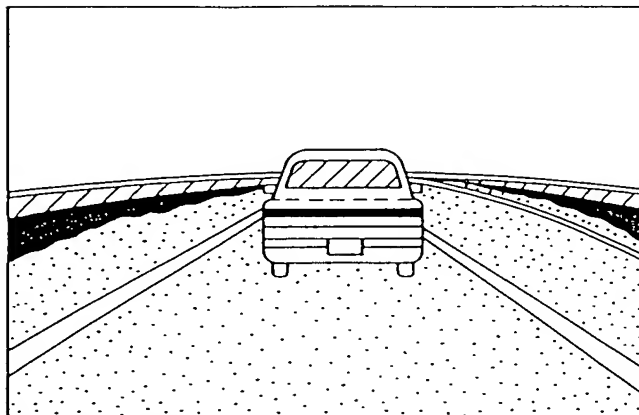


Fig.2



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Fig.3

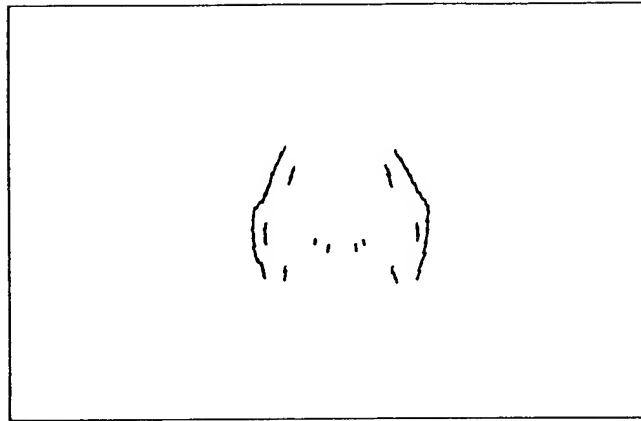
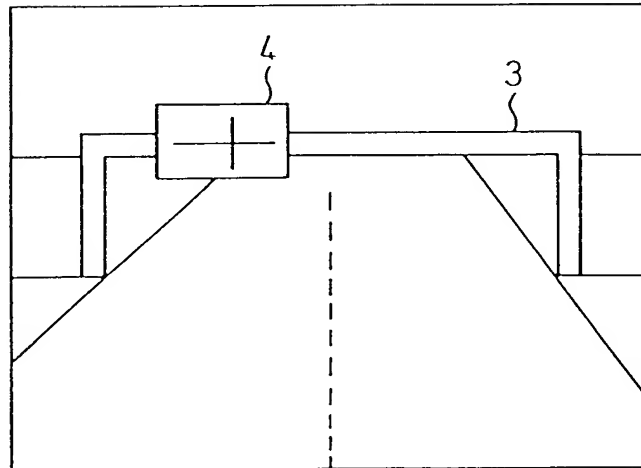


Fig.4



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Fig.5

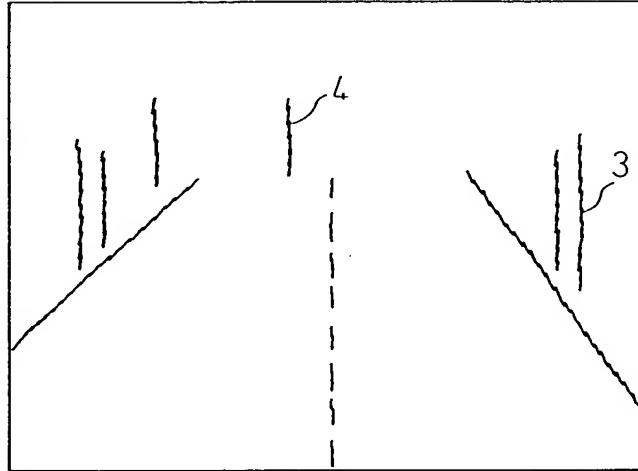
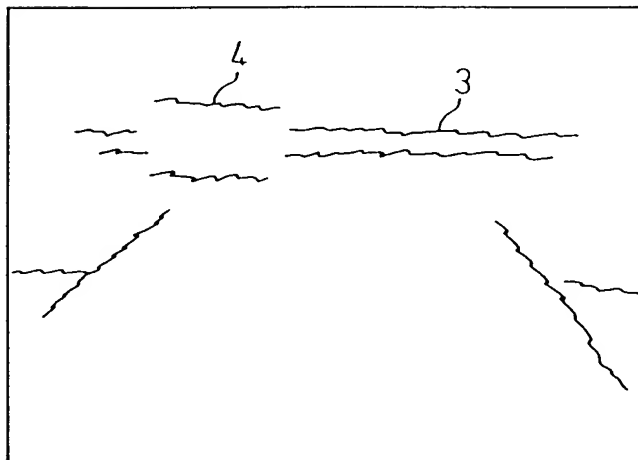
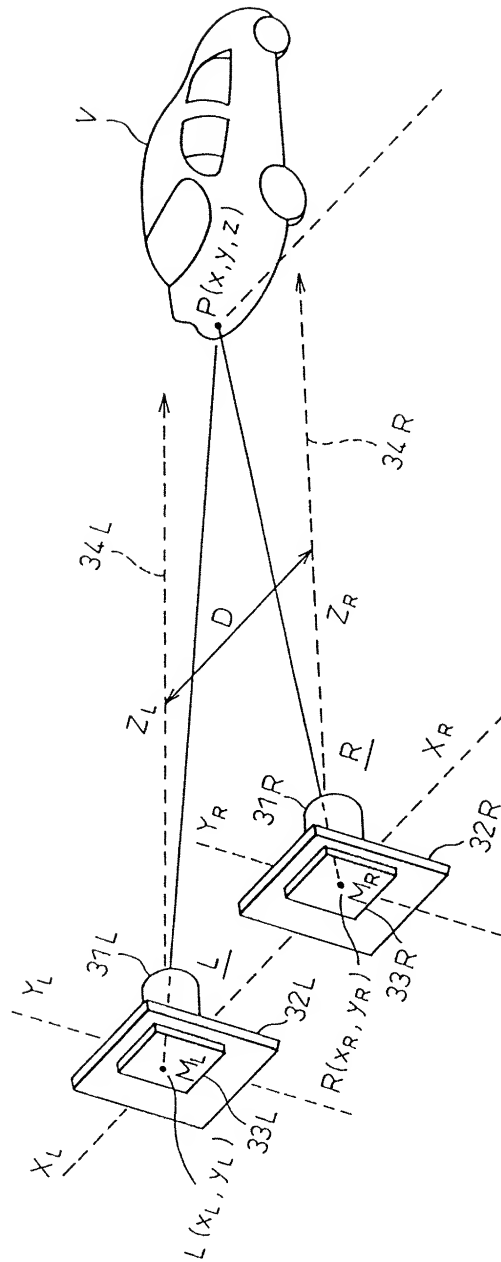


Fig.6



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Fig. 7

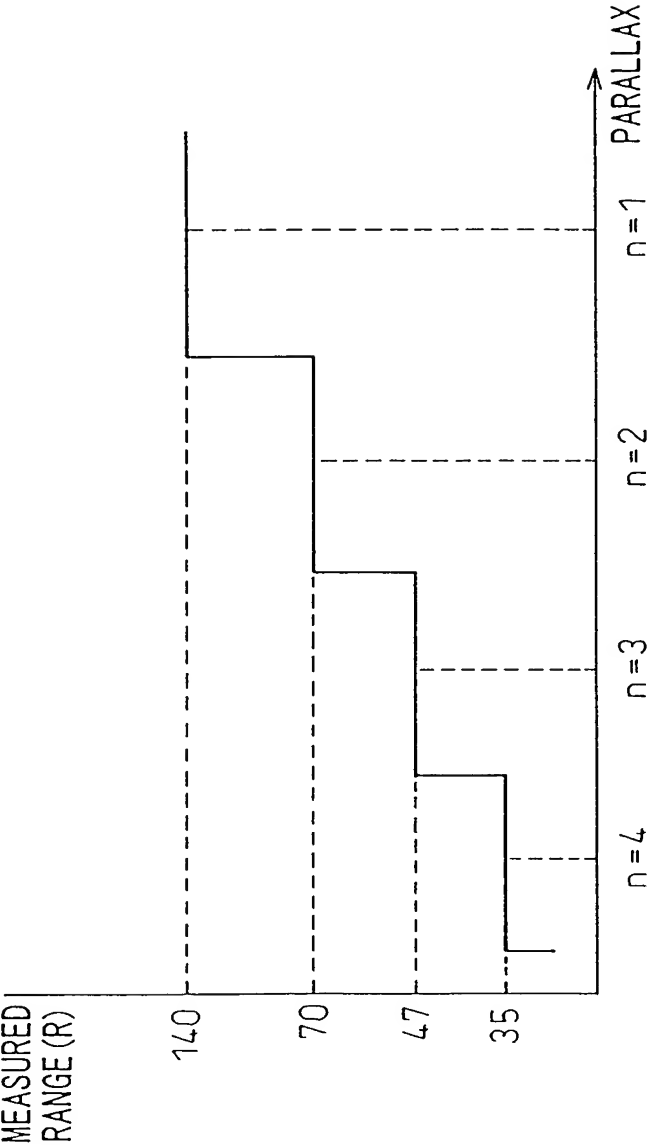


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Fig.8

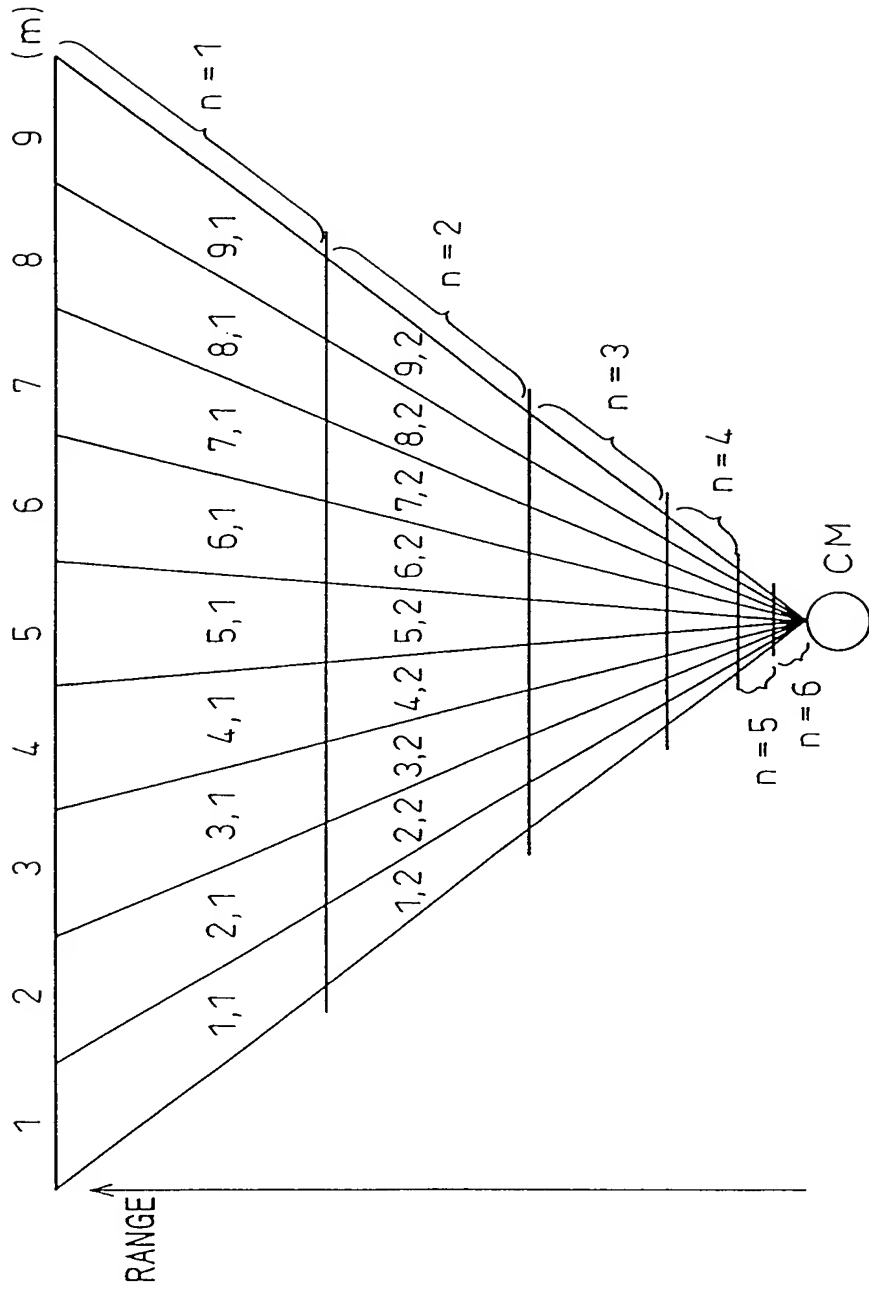
$$R=K/n \ (n=1, 2, 3, \dots)$$

(FOR  $K = 140$ )



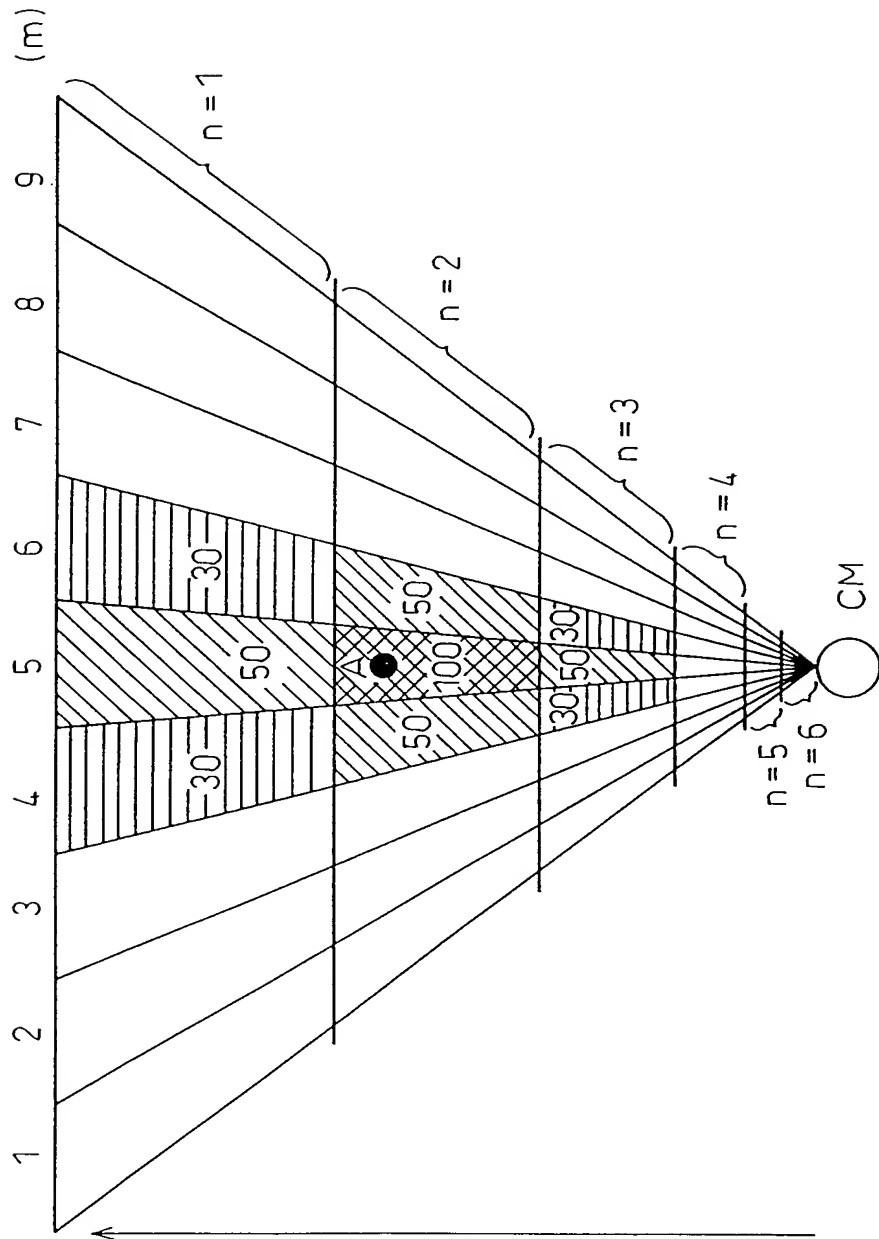
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Fig.9



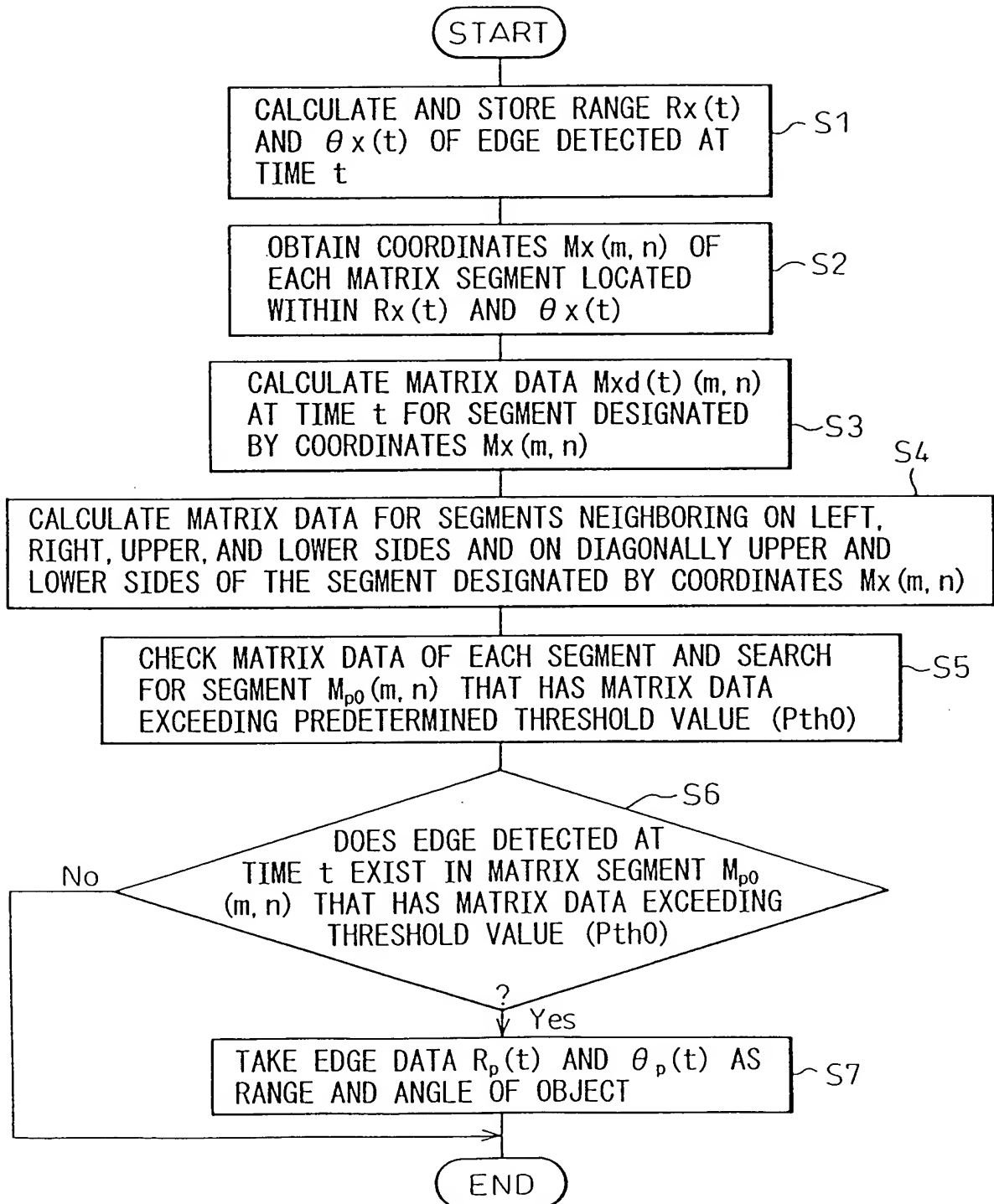
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Fig.10



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Fig.11



```

graph TD
    Start(( )) --> S6{S6  
DOES EDGE DETECTED AT  
TIME t EXIST IN MATRIX SEGMENT Mp0  
(m, n) THAT HAS MATRIX DATA EXCEEDING  
THRESHOLD VALUE (Pth0)}
    S6 -- Yes --> S7[S7  
TAKE EDGE DATA Rp(t)  
AND θp(t) AS RANGE  
AND ANGLE OF OBJECT]
    S6 -- No --> S8[CHECK MATRIX DATA OF EACH SEGMENT AND SEARCH  
FOR SEGMENT Mp1(m, n) THAT HAS MATRIX DATA  
EXCEEDING PREDETERMINED THRESHOLD VALUE (Pth1)]
    S7 --> S8
    S8 --> S9{S9  
DOES EDGE DETECTED AT  
TIME t-1 EXIST IN MATRIX SEGMENT Mp1  
(m, n) THAT HAS MATRIX DATA EXCEEDING  
THRESHOLD VALUE (Pth1)}
    S9 -- Yes --> S10[S10  
TAKE EDGE DATA Rp(t-1)  
AND θp(t-1) AS RANGE  
AND ANGLE OF OBJECT]
    S9 -- No --> S8
    S10 --> S8
    S8 --> Sn[CHECK MATRIX DATA OF EACH SEGMENT AND SEARCH  
FOR SEGMENT Mpn(m, n) THAT HAS MATRIX DATA  
EXCEEDING PREDETERMINED THRESHOLD VALUE (Pthn)]
    Sn --> Sn1{Sn+1  
DOES EDGE  
DETECTED AT TIME t-n  
EXIST IN MATRIX SEGMENT Mpn(m, n)  
THAT HAS MATRIX DATA EXCEEDING  
THRESHOLD VALUE (Pthn)}
    Sn1 -- Yes --> Sn2[Sn+2  
TAKE EDGE DATA Rp(t-n)  
AND θp(t-n) AS RANGE  
AND ANGLE OF OBJECT]
    Sn1 -- No --> End([END])
    Sn2 --> End
    End -- Pth0 < Pth1 < ... < Pthn --> End

```

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Fig.13

